IN THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) A method of forming an integrated circuit heat sink comprising:

forming a metal conductive structure having a cavity;

injecting a phase change material into the cavity;

injecting a plurality of non-phase changing spheres into the phase change material ~~cavity~~; and

sealing the cavity.

2. (Currently Amended) The method of claim 1, wherein forming a metal conductive structure having a cavity comprises:

forming a metal conductive structure having a cavity including a cavity surface having a plurality of ramp structures formed on the cavity surface.

3. (Original) The method of claim 1, wherein injecting a phase change material into the cavity comprises:

injecting TH58 into the cavity.

4. (Original) The method of claim 1, wherein injecting a plurality of spheres into the cavity comprises:

injecting a plurality of solid spheres into the cavity.

5. (Currently Amended) The method of claim 1, wherein sealing the cavity comprises:

closing an injection hole in the metal conductive structure.

6-16. (Canceled)

17. (New) A method of forming an integrated circuit heat sink comprising:
forming a metal conductive structure having a cavity and a plurality of fins;
injecting a phase change material into the cavity;
injecting a plurality of mixing spheres into the phase change material; and
sealing the cavity.

18. (New) The method of claim 17, wherein forming a metal conductive structure having a cavity and a plurality of fins includes forming a substantially flat surface on an external surface of the metal conductive structure.

19. (New) The method of claim 18, wherein forming a substantially flat surface on an external surface of the metal conductive structure includes forming the flat surface by machining.

20. (New) The method of claim 18, wherein forming a substantially flat surface on an external surface of the metal conductive structure includes forming the flat surface having a footprint that is significantly larger than the surface area of an integrated circuit die to which the metal conductive structure is to be attached.

21. (New) A method of forming an integrated circuit heat sink comprising:
forming a metal conductive structure having a cavity;
injecting a phase change material into the cavity;
intermixing a plurality of fluid mixing spheres into the phase change material; and
sealing the cavity.

22. (New) The method of claim 21, wherein intermixing a plurality of spheres into the phase change material includes selecting a number of the plurality of spheres intermixed to be a large enough number to enhance convective cooling in the phase change material.

23. (New) The method of claim 21, further including coupling the metal conductive structure to an integrated circuit die.

24. (New) A method of forming an integrated circuit heat sink comprising:

forming a pair of symmetrical structures, each of the pair of symmetrical structures having a volume;

coupling the pair of symmetrical structures to form a cavity;

injecting a phase change material into the cavity;

injecting a plurality of fluid mixing spheres into the phase change material; and

sealing the cavity.

25. (New) The method of claim 24, wherein forming a pair of symmetrical structures includes forming the volume of each of the pair of symmetrical structures to be approximately one-half of a volume of the cavity.

26. (New) The method of claim 24, wherein forming a pair of symmetrical structures includes forming fins on an external surface of each of the pair of symmetrical structures.

27. (New) The method of claim 26, wherein forming fins on an external surface of each of the pair of symmetrical structures includes attaching the fins using a metal fusing process.